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THE
MEDICAL AND SURGICAL REPORTER.

No. 1023.]

PHILADELPHIA, OCT. 7, 1876.

[Vol. XXXV.—No. 15.]

ORIGINAL DEPARTMENT.

COMMUNICATIONS.

THE GENERAL PATHOLOGY OF
ASTHMA.

BY C. W. CRAM, M. D.,

Of Scranton, Pa.

(Continued from No. 1022.)

III. By contrast.

Conditions seen in real spasm and tonic contraction of lung tissue, bronchi, trachea, and larynx, against the conditions seen in the supposed asthma spasm of the smaller bronchi.

All will admit that there is, in pertussis, an undue amount of nervous excitability, and that this culminates in peculiar spasmodic action, which is characteristic of the disease; and that this morbid, spasmodic action through which the cough runs is wholly expiratory.

Now, in this spasmodic action the chest walls are carried as far below the level of ordinary expiration as they are above the level of ordinary inspiration in asthma.

Hence, if spasmodic action in the expiratory forces in whooping cough empties the lungs of air to an extent known to no other disease, is it not clear that the marked inflation of the lungs that exists in asthma, and in no other disease, is from the paralysis of the same power?

The thoroughly collapsed condition of the lungs at the time of the whoop, when the reserve air has all been forced through the glottis, not only seems to be the reverse of what exists in asthma, but the indication is strong that the contractile power involved in this morbid action

is chiefly, if not wholly, in the pulmonary apparatus, from the lobules to the larynx.

Another striking proof that the lung is practically a muscle, with active motor force from the larynx to the lobules, is found in the conditions incident to pleuritis. In this disease the dyspnoea is attended by phenomena peculiarly its own, and clearly in contrast with those of asthma, the chest-walls being decidedly and permanently flexed through the career of the disease, the respiration being abdominal, with the external muscles of inspiration held in abeyance. The pathology in the case is well understood, an inflammatory process existing in the serous membrane covering the lungs.

Now, the contraction of the lung volume is equally marked and permanent, as is its inflation in asthma. Let me ask what object has the vital sense of the organism in view in this persistent depression of the chest. Undoubtedly it is to take pressure from the inflamed surface. Yet it is easy to see that if this restricted position of the lungs was due to primary depression of the walls, the pressure would be increased, and the pain, so sharp and lancinating, augmented.

And it cannot be due to excessive and permanent contraction of the elastic tissue, as this is not directly amenable to volition or the vital sense of the organic system of nerves.

Where, then, but in the lungs and their tubes of air supply, can this power of restriction exist? It is evident, if we admit this power to exist, that the lungs, acting upon the inferior surface of the walls, as the diaphragm does upon the inferior border of the lungs in inspiration, draws them down to a level, where their

pressure is the least; in other words, the lungs get away from the walls, as far as possible, when, the force exerted by the lungs being kept equal to the resistance of the chest-walls, an equilibrium is established and continued as long as the necessity for it exists.

By a careful survey of the medicines upon which reliance is placed, it will be seen that they are all of a stimulating tendency, by which they arouse the dormant energies of the body, and impart fresh force to the paralyzed parts.

Among the medicines found more or less useful by different practitioners in this disease, is stramonium; and the method of its use, by taking its smoke by inhalation, is very good evidence of its stimulant action. Ringer,* in treating this subject, says: "It is better to smoke the plant unmixed, as few persons can draw the fumes of tobacco into the lungs without great discomfort." Again the same author says of the inhalation of stramonium: "It excites a good deal of coughing, but soon produces copious secretion when the fit subsides."

That is, that the stimulation produced by the irritant action of these fumes upon the sensory fibres of these parts is sufficient to impress the motor fibres, when, contracting, the mucus is expelled, and the "fit" subsides. Such, also, is evidently the action of nitre, so often used in connection with the fumes of stramonium.

In one of Dr. Salter's cases, a lady who had suffered from asthma since her fourth year always received relief from the burning of bibulous paper saturated in nitre, "save in those attacks which resulted from inflammation of the bronchi." Now in the attacks above alluded to, the sensory fibres were probably involved in paralysis to an extent that rendered them unfit to receive any impression unless from a more powerful irritant than the nitre fumes. In another case, a gentleman of middle age stated: "I have used it (the burned nitre paper) for twenty years, and when the difficulty of breathing is purely spasmodic, I am sure to get relief from it." I infer that by "purely spasmodic," is meant entire freedom from the complication of bronchitis, which, when severe, is likely to be a serious impediment to successful treatment, as indicated in the above cases. Here is, I think, the secret of many cases of failure in the treatment—the sensitive fibres

being inoperative just in proportion to the extent of the bronchitis, which is, in my view, a partial, if not complete, paralysis of the mucous membrane. The effect in the treatment by tobacco, by the use of its fumes, is the same. Yet there may be a time when the muscular relaxation attending a nauseating dose of this medicine would, by breaking the strong hold of the inspiratory muscles, allow sufficient depression of the chest walls to relieve the paralyzed lungs of their forced extension; for when the traction that puts them upon the stretch is broken, they will the sooner rally and resume their functional work. In the same manner we may have, at times, the action of chloroform. And yet this remedial action, if it ever exists, is only secondary in its effect upon the disabled expiratory force. The same principle is involved, when, in the treatment of a case of wrist-drop from lead poisoning, we make use of an apparatus that maintains the hand in its natural position, by which the stretching of the paralyzed extensors is obviated.

Dr. Telford Jones* has published cases in which excellent results are accorded to the action of the nitrite of amyl in asthma; and it is a significant fact that its best effects were secured from inhalation.

Such also is the case with sulphuric ether, the stimulating effect of the inhalation being calculated to arouse all the lung power of expiration in an effort to guard the system against its intrusion.

Every practitioner who has administered this anæsthetic will recall to mind the violent efforts to repel it, all the animal powers of the body being enlisted in aid of the expiratory forces.

Not least in power to control the paroxysms of this disease is belladonna; good results generally being accorded to its action in this connection. By what action on the system is the good result secured?

I think it is attested beyond doubt that belladonna is a stimulant tonic to the unstriated or organic muscular tissue; hence the fullness with which it meets the prime indication in this disease, that of giving tone to, and reinstating the contractility of, the paralyzed bronchial and vesicular fibres, whereby they are enabled to contract upon and expel their contents of carbonized air.

By studying its action, Brown-Séquard con-

* "Handbook of Therapeutics," Second Ed., p. 375.

* *Practitioner*, October 1871.

cluded that this medicine exerted its influence largely on the sphincter muscles of the body. Its curative action in the incontinence of children might appear to sustain this conclusion. But in this troublesome complaint of children, it is not the sphincter vesicæ that is chiefly at fault, but the longitudinal or detrusor muscular fibres.

Weakness and irritability not only involve these, but also the sensitive fibres of the mucous coat of the bladder; and owing to this condition its accumulating contents cannot be retained a sufficient length of time. Here belladonna exerts its power to "tone up" these fibres, thereby reinstating the normal balance of forces.

I next come to ipecacuanha. That this has a stimulant action, in this connection, I am fully satisfied. And in this I am supported by no less an authority than Burdon-Sanderson, who treats this disease with stimulants, and considers ipecac one of the best in his use. But as this medicine is given internally, and as it is classed as an emetic, it is well to study its emetic action, that its influence in asthma may stand in a clearer light.

In the movements that occur in emesis our best physiologists, Magendie, Flint, Jr., and others, agree that the most active agents involved in the spasmodic contraction are the diaphragm and abdominal muscles; while Beclard, Zegallos, and others, have demonstrated that the longitudinal fibres of the oesophagus are also violently active in their contraction.

Now, a condition very much the reverse of this prevails in a paroxysm of asthma, when the maximum descent of the diaphragm is attained and continued through an indefinite length of time; consequently, as soon as nausea is manifest there is an immediate tendency to break up the chest expansion and blood stasis that exist in asthma. And more. While all the bodily powers are oppressed by the retention of carbonic acid in this disease, and no possibility of an antistaltic movement to eliminate it, the sympathetic system, aided by the advantage already gained, rallies in its effort to institute renewed action in the paralyzed fibres of the bronchial muscles and air vesicles, the only means remaining for the expulsion of the poison from the system.

Herein exists, in my belief, the efficacy of all nauseant remedies in asthma.

I will notice a few of the leading remedies that have a more direct action as stimulants.

Coffee is one of these. Its stimulant action is undoubted, and that it often has a good effect in asthma is equally well established. The fact that the beneficial effect is increased when the coffee is given strong and hot, indicates the work of the organic system in limiting the career of the disease.

Another representative of this class of medicines that has been used with much success, is ammonia.

M. Guerard * met with rare success in its use when applied directly to the pharynx. He had used it in a hundred cases, the effect being immediate and remarkable. It had the appearance of heroic treatment, and physicians who saw its use, with its good results, were afraid to employ it in their own practice, because they were unable to understand the principle on which it acted.

Brown-Sequard and others have sanctioned the use of this stimulant, thus locally applied, in this disease; and its successful use is a strong proof in support of the position I have assumed.

Iodide of potassium, another medicine of great value in this disease, and of the action of which Dr. Salter changed his mind previous to his death, is also a powerful stimulant to the organic system, and in this way exercises its efficiency in the premises.

I now present the following summary.

1. The lungs constitute practically a double, hollow, muscular organ.
2. They are possessed of contractile power furnished by the pneumogastric nerves.
3. In the exercise of this power in expiration, the larger portion of their functional action is performed, viz., in the decarbonization of the blood, and in the use of the voice, in which expiratory action they are equivalent to flexor muscles, acting upon the chest walls in antagonism to the diaphragm, and the external extensor muscles of inspiration.
4. The paralysis of this power, not only in the lungs, but in the air tubes, constitutes the pathology of asthma, and the leading phenomena that result from, or are connected with, the chest expansion are incident to the excessive action of the inspiratory muscles, the antagonizing force being disabled, whereby the chest

* "Braithwaite," part 13, p. 89.

walls are carried outward, and maintained, during the paroxysm, at a line far beyond that which limits ordinary inspiration.

5. That pulmonary emphysema is a permanent paralysis of the same contractile power, involving those air vesicles that are least able to bear the severe strain put upon them in the frequently-repeated paroxysms to which the asthmatic is subjected, and in a vast majority of cases is simply chronic asthma.

6. And that the morbid condition which exists in bronchitis, so often associated with asthma and emphysema, but which often occurs uncomplicated, is the result of a paralysis, more or less complete, that involves the sensitive fibres of the mucous membrane of the air passages.

CLINICAL STUDIES OF INEBRIETY.

BY T. D. CROTHERS, M. D.,

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Several letters have been received from physicians inquiring about the curability of inebriety, and what evidence we have of permanent restoration.

In answer, I would state that in 1874 fifteen hundred circular-letters were sent to the friends and relatives of patients who had been here for treatment five years ago and more, inquiring into their present condition. The answers received indicated that over sixty-two per cent. were yet sober, and had not relapsed.

From this data, strong presumptive evidence is manifest of a large percentage of permanent cures. What this percentage is can only be ascertained from statistics, extending over many years, from various asylums in different parts of the country.

The present methods of following our cases for one year after discharge indicate over eighty per cent. who continue restored, and less than twenty per cent. who relapsed during this time.

A large percentage of the cases sent here are of the most unpromising character for recovery, made up largely of men that are chronic drunkards, who have tried every other means of cure, and are broken down both mentally and physically; also a class of young men who inherit degenerations and predispositions that border closely upon insanity. From such cases, who are almost incurables (without the legal

power of restraint to hold them long enough), the results of treatment far exceed those of any other branch of medicine.

Two very erroneous impressions prevail concerning our work: one, that inebriety is an incurable disorder, which cannot be reached by medical means, and where recovery follows, it is from some power of the will, or moral force under the control of the patient. The other class suppose we use some extraordinary means by which an inherited diathesis may be driven away, or the craving engendered and followed by profound degenerations be destroyed and perfect health restored.

The former reason from the statements of incurables, who are always prominent in denouncing asylums, and the latter, with ignorant credulity, anticipate the most extravagant results. Intelligent physicians holding such opinions appear here as visitors occasionally.

Hardly a quarter of a century has passed since the treatment of inebriates in asylums was agitated, and a still shorter time has elapsed since the establishment of asylums. The problems of this work are many and complex, and the experience and observation of many years are necessary before we can attain completeness.

Compared with the results of the best insane asylums, built on the experience and studies of over half a century, the treatment of inebriates gives the grandest promise of any work for the welfare of the race.

Other asylums, differing in management and other minor particulars, exhibit equally flattering statistics, indicating, without doubt, the thorough curability of a large percentage of this class of patients.

The following cases are selected from a large number, as giving least promise of recovery, and as illustrating the permanence of restoration.

At present all cases are divided in prognosis into those who give almost positive evidence of recovery, those who are uncertain, and those who recover, but are subject to relapses, governed by circumstances of temptation and ill health.

Inebriety from Inheritance and Grief of Long Duration, continued Eight Years—Recovery.

H.; born in England. Father a moderate drinker; grandfather and one uncle drunkards; forefathers on his mother's side drinking people. Educated as a book-keeper. Came to

this country as an assistant in a branch of an English banking-house, a situation of much responsibility. Married here, worked irregularly, and began to take liquor to keep it up. His wife was killed by an accident, and, overwhelmed with grief, he drank to intoxication. Every week, when the work was over, he sought to drown his grief in liquor. From this time on his course was steadily downward. He finally sought to break up this craving; went to Europe, and got a situation; removed from temptation, but after a year failed, and returned. Then he went to the mineral springs of Virginia, and tried various means, without success. For the next ten years he went from place to place, growing worse, and drinking daily to intoxication when he could get liquor. Had delirium tremens twice, and became hostler at a hotel. In 1868 he was sent here, as an almost incurable case. He was anæmic, had delusions, bad memory, feeble intellect, and was partially palsied. The cravings for liquor were of the nature of insane impulses, filling him with extreme agitation and irritability; uncertain and violent.

Six months later he was discharged at his own request, and recovered, although weak. For six months following he worked as a gardener, in the suburbs of New York, and then went to his old work of book-keeping.

Two years later he became a banker in a Western city, and is now, eight years after, a cashier of a large bank. He is in good health, has not drunk any liquor, has no desire or taste for it, and is firmly restored in his own mind.

Comments.—The inherited diathesis, and reaction from grief in craving for stimulants, seemed a combination of causes difficult to break up. The duration and thoroughly chronic condition of the patient when admitted gave little or no hope beyond temporary relief. Had he, when discharged from the asylum, gone back to his old employment, subject to irregularities, relapse would have followed, but the continuation of healthy living, as gardener, aided in a more thorough restoration. In all probability his recovery is permanent, although, under certain conditions of ill-health and favoring circumstances, the danger of relapse may again exist. The possibility of recovery, under the most adverse conditions, is the practical lesson from this case, only the time necessary must be commensurate to the duration and character of the case.

Inebriety from Excitement and Overwork—Recovery—Six Years' Duration.

C.; both parents temperate and healthy. Common school education. Went into his father's store as clerk when 24 years old. Succeeded his father at the head of the firm. Was temperate and led a regular life. Opened a branch store in New York, which was unprofitable, causing great loss. He visited New York often, and worked very hard to build up business, traveling in the night, and neglecting ordinary habits of eating and sleeping. Sharp rivals competed with him, and much excitement followed. He began to take liquor, and soon felt the want of it. He drank every day, and as business became worse, drank harder, and finally, when he failed, a year later, was a full drunkard.

For the next five years he drifted about, doing nothing, but drinking, growing imbecile and idiotic. His memory and reason seemed almost gone, drinking daily to intoxication. Both sensory and motor systems were partially paralyzed. Alcohol appeared to act as a narcotic, keeping him in a continual stupor.

In 1869 he was sent here, and remained nine months. Nothing unusual is recorded of his case, except a fever after admittance. When discharged, he was in good health; his memory and intellect had returned to nearly their former standard.

He engaged as a packer of goods in a large house for the first year, and then became a book-keeper; now he is a partner in this firm. He is in good health, and is working with great regularity every day. His mind and memory are fully restored, and he is positive that he never will relapse.

Comments.—This case is remarkable for the gravity of the symptoms, indicating a degree of chronicity that was almost hopeless, and yet, under asylum treatment, making equally remarkable improvement. This case may be said to be cured, for only thorough restoration could break up the profound degenerations which had begun.

Inebriety from Brain Lesion—Recovery—Four Years' Duration.

K.; of healthy parents; brought up on a farm in Vermont. Temperate and well, up to twenty-six years of age, when, in a railroad accident, he was partially submerged in a stream of water, and held by the ruins, with the prospect

of being burned to death, for over an hour, in a cold winter's night. He had but little physical injury; was laid up for four months, with a low form of nervous fever. When he resumed business again (as speculator), he had, at intervals of a week or more, insane longings for liquor. These grew upon him, and three years after he was an impulsive, constant inebriate; intoxicated nearly every day. Five years later he was very much shattered in body and mind, had delirium tremens, and drank all he could get. In 1872 he came here as a free patient, with the prospect of only temporary benefit. For the first six weeks he was very intractable, and was often locked up for days; then he began to improve. Nine months later he was taken by a relative to work in a broom-corn factory, and carefully watched and cared for during the next year. At this time, four years after, he is successfully managing a large farm, and is in good health, although weak at times, has no desire for liquor, and is quite fleshy.

Comments.—This case gives excellent promise of permanent cure, although arising from obscure injury in the brain cells, which was intensified by the degenerations from alcohol. Yet there appears to have been recuperative power in nature, aided by art, to restore the moral activity. Every year of quiet, regular living removes him further from the danger of relapse.

Inebriety from Inheritance and Nervous Irritation—Recovery—Six Years' Duration.

M.; both parents wine drinkers after meals, and luxurious livers. He was brought up to drink wine, until sixteen, when he became a cadet at West Point. Six years later he was an engineer in the service, and thoroughly temperate. At this time he resigned, and was engaged as surveyor in charge of a Western railroad, and thrown into company with drinking men. He began to drink, from a desire to be social, with no love or taste for liquor. A year later he acquired a strong craving for it. Eight years more, and he was a paroxysmal inebriate. In 1869, he was brought here, suffering from delirium tremens. His mind was filled with delusions for weeks after. He had chronic gastritis; was palsied; had also anasarca and was anæmic. He went away four months later, very much restored, although weak, and soon after procured a situation, which he retains to-day. He has been improving, and is now

cured, from his statement. Has never taken liquor, or craved it.

Comments.—Like the others, this case gave little hope of cure, but the history indicated that general debility and circumstances of temptation were factors in continuing the disorder.

Inebriety from Joy, and Recovery, of Seven Years' Duration.

N.; a man of average capacity; of healthy, temperate parents; engaged in house-building. Was temperate up to 1865, when he was overwhelmed with joy at the return of his only son, who was supposed to have been killed in the first battle of Bull Run. So profound was the emotion that he seemed partially insane neglecting all business, and riding round, shaking hands with his friends, ending, after a few days, in intoxication that lasted forty-eight hours. From this time he drank to excess on every occasion, and three years later failed in business, and went rapidly from bad to worse. In 1868 his friends sent him here, and three months later he went away recovered. From that time he has been well and prosperous, and is one of the great advocates of temperance in his place.

Comments.—This case began in some profound disturbance of the brain cells, which reacted in inebriety, and forcible restraint in the asylum gave opportunity for restoration and recovery of the normal equilibrium. Nothing but treatment in an asylum would ever have been adequate to break up this condition.

Inebriety from Nervous Irritation, with Relapse.

Q., with healthy and temperate parentage; grew up a strict temperance man. Became a successful manufacturer, opened a branch store in New York, and was called there frequently on business. His associates drank wine largely at night, and through excitement and overwork he drank from imitation, soon acquiring a strong taste, which for two years he was able to control when away from this society. But at last his will was overcome, and he drank to intoxication. Ten years after, he was brought here with delirium tremens, and after a long convalescence and slow recovery, went away five months later. Two years passed, when he returned in nearly the same condition as before. He had relapsed in the same way, through overwork and social imitation. Four months later he went away, and for two years past he has been quite well,

and is very careful to avoid temptation or irregularities of living.

These cases indicate that circumstances and condition of bodily health are powerful factors in the progress of inebriety. Remove the patient from the source, alcohol, and build up physical health; stimulate the will to help itself, and restoration always follows, if not permanent recovery.

All these cases were continuous and progressive, without any pauses, from the beginning, indicating a very weak power of resistance, and degenerations that were profound, involving both sensory and cerebral centres.

Cases that are marked by halts or pauses, where the will gets the ascendancy and the desire for liquor dies out, afford opportunity for nature to build up against the relapses, and are more curable.

Inebriety is curable in the same sense that pneumonia and pleurisy are curable. Restoration will follow in every case, as a rule, from the use of proper means, of which residence in an asylum is absolutely essential. The permanency of recovery depends upon the complete restoration to health and the freedom from exciting causes. The latter varies in each case, as, for instance, in one it will be excitement, or grief, and in others it is excesses of all kinds, or idleness, or prosperity, or poverty, etc.

When the causes and prognosis are better understood, the number of chronic cases will diminish, and its successful treatment will be the rule in all cases, and the failures the rare exceptions.

THE FORCEPS AS A DILATOR.

Read before the Medical Society of Alleghany County, Maryland.

BY GEO. B. FUNDENBERG, M. D.

I desire to call the attention of the Society to the value of the obstetrical forceps as a dilator in certain cases which prove a source of great annoyance to the practitioner, and sometimes of danger to mother and child. These are instances in which the os uteri refuses to dilate in such time as is compatible with the safety of the mother and child. After many hours of labor, the os has opened perhaps to the size of a quarter of a dollar, and then remains stationary, notwithstanding the use of all the known agents

for promoting dilatation. The most urgent reasons may exist for rapid delivery, such as eclampsia, hemorrhage, alarming debility, and other complications. Under such circumstances, Barnes' dilators have been recommended, and incisions into the circumference of the os have been practiced. For certain cases Barnes' dilators may be useful, but their use will, I think, be found more feasible in theory than in practice in cases in which the head is closely applied to the inner os. And as regards incisions, every prudent man will prefer a method which entails no lesions and opens no wound for the entrance of septic poisons.

It is in these cases that the forceps proves its admirable adaptation to the double purpose of rapidly dilating the womb and delivering the child. And here I wish to be distinctly understood as only recommending the forceps for such a purpose in the exceptional cases above referred to, and then only in hands skilled in the use of the instrument, capable of entire self-control, and guided by a correct appreciation of the amount of strain the tissues will bear. It would be, of course, in the highest degree unwarrantable and dangerous to lay down as a rule the indiscriminate use of the forceps as a dilator; for when the instrument is introduced through an undilated os and locked upon the head of the child, the slightest want of care, the least precipitancy, may result in a laceration. But when properly used, I believe the instrument to be entirely safe, and certainly the most potent means yet proposed for speedy delivery. The forceps I hold in my hand (Elliott's) has a breadth of blade at its broadest part of one and seven-eighths of an inch, therefore you will perceive that when the first and second finger, side by side, can be introduced into the os, the forceps can also be passed with equal facility. Now, when both blades are thus introduced and locked over the head, if the tension be great, no effort will be made until the os, tested by the touch of the finger, begins to relax. A gentle effort will now, by causing the head to descend, compel the os to ascend upon the inclined plane formed by the diverging blades of the instrument, and thus by repeated and careful traction the womb is fully dilated and the child delivered. As soon as the os has ascended to that part of the forceps at which the fenestra begin, the head comes into play as a dilator, and touching the inner os, assists materially. Both the instrument and the head, used in this manner as

dilators, imitate nature in this, that they both operate from within outward; and have this advantage over all other methods, that they have nothing uncertain in their operation, but are completely and definitely under the control of the operator as regards the progress of the dilatation.

Three cases have occurred to me, quite recently, which illustrated the value of this procedure. The first, to which I have adverted in a former paper, was that of a primipara, who was seized with uræmic convulsions within a few days of her expected confinement, and in whom, in order to expedite the labor, I dilated with the hand until the forceps could be introduced, and then finished the delivery in less than an hour after their introduction; thus avoiding many hours of delay, at a time when the rapidly-recurring convulsions rendered every moment precious.

My second case was also a primipara, in whom forty-eight hours of labor had only produced a dilatation large enough to admit two fingers. In this case, as the patient was showing signs of alarming exhaustion, and had a rapid and irregular pulse, with incoherence of mind, I introduced the forceps, and finished the labor safely in less than an hour.

My third case was a multipara, living fifteen miles from town, who had been in labor under the care of a midwife for forty-eight hours. She had severe pains, recurring every few minutes; the os, dilated to the size of a quarter of a dollar, was hard and unyielding, and contracted with each pain. I placed her under the full effect of chloroform for half an hour, and assisted dilatation gently with the hand, and at the expiration of six hours the os admitted two fingers. Being compelled to go home, and unwilling to leave the woman undelivered, I introduced the forceps, dilated, and delivered within an hour.

In none of these cases was there any laceration, nor any subsequent inflammatory reaction. It may appear to some gentlemen an unwarrantable procedure to introduce a forceps into the womb at such an early stage of labor; but, much as I deprecate "meddlesome midwifery," I believe that every practitioner must at last be the most competent judge of his own practice in each individual case. And in a profession as full of progress as ours, we need feel no uneasiness if that progress sometimes, to the slower-going part of the profession, appears to lead toward apparently hazardous practices.

A CASE OF UNUNITED FRACTURE OF THE TIBIA TREATED BY DRILLING.

BY R. M. LACKEY, M. D.,
Of Maywood, Ill.

The report of a case of ununited fracture, by my worthy friend, Dr. Dibrell, of Little Rock, Ark., in a recent issue of the *REPORTER*, moves me to relate a case treated by another method with equal success.

Richard Lawrence, an Englishman, 26 years of age, while walking on the railroad track, was struck by an engine and severely injured; a train coming up behind him, without his knowledge, the cow-catcher struck his right leg, about midway from the ankle to the knee, producing a fracture of both bones and comminuting the tibia greatly, and forcing the fragments through the skin in front, causing extensive laceration. The comminution was so great that I was enabled to remove several fragments, from a half to an inch in length, which were entirely or almost entirely detached. On the posterior aspect of the limb, where the cow-catcher struck, the tissues were so bruised as to slough away, leaving a deep ulcer.

The man also suffered from severe concussion of the brain, produced by the head striking the cross beam of the engine, which, together with his other injuries, left little hope of his recovery.

The limb was placed in a fracture-box and the bones adjusted, after removing some of the sharp points which projected from the two fractured ends of the tibia, and which were denuded of periosteum. It was five or six days before the patient fully recovered from the shock and concussion. After the recovery from these, however, the case progressed well for five weeks, when the flesh wounds were nearly healed, and some bony deposit had taken place. About the beginning of the sixth week, on visiting my patient one morning, I found that during the night he had had a severe chill, which convulsed him so violently as to separate the fragments and do great injury to the wound. Following this, he had an attack of bilious remittent, which was broken up as speedily as possible; but he afterward had frequent attacks of chills and fever, which seemed to defy ordinary remedies and doses, and greatly retarded the progress of the case.

At the end of twelve weeks there was a firm bony union of the fibula, but only ligamentous

union of the tibia. Frictions were used daily to the limb, a plaster-of-paris dressing was applied, and he was allowed to move about some on crutches, and bear some weight on the fractured member. No improvement resulted from these measures, and at the end of eighteen weeks I determined to produce bony union by drilling the bone, after the method introduced to the profession by the late Professor Brainard.

The "Brainard drill" is, I presume, familiar to every surgeon, and I need take no time in giving a description of it here. It was employed for many years, and in a large number of cases, by the inventor, with scarcely any failures. Other surgeons have used this method with like results, notably Professor Powell, of Rush Medical College, who informed me that in the large number of cases in which he has employed the drill there have been no failures, except in cases where adverse conditions or circumstances existed, which would have caused failures, no matter what method of treatment had been adopted.

In this case I performed the operation of drilling by entering the drill an inch above the seat of fracture, in front, and directing it obliquely downward and backward, so that the instrument would traverse the upper fragment, the ligamentous deposit between the ends, enter the lower fragment, and emerge an inch below the fracture, on the posterior aspect of the bone.

The drill was entered again at the seat of fracture, and two holes bored transversely through the ligamentous deposit.

The member was then dressed as in cases of simple fracture, and he was kept still for six weeks; at the end of the sixth week bony union had taken place, and at the end of nine weeks he was up and about on crutches. In a few weeks more he laid aside crutches and canes, and went to work at his trade, a plasterer. The limb is without deformity of any kind, and perfectly strong.

With the uniform success attending this method of treating ununited fractures, I could scarcely be induced to resort to any of the other methods in use.

In Dr. Dibrell's case, where he resorted to excision and wiring, I believe his silver wire was entirely superfluous, and the excision of the cartilaginous deposit unnecessary, had he bored through it instead. The drilling was, in my opinion, what did the business, and the result

would have been the same had the wire been dispensed with.

In the operation of drilling no incision is needed, ordinarily, and no considerable violence is done to the soft parts. The drill is made to penetrate the soft parts, and enter the bone at the proper point without difficulty; and should it be desirable, as it frequently is, to drill more than one hole, it can be done without withdrawing the instrument from the soft tissues, but only from the bone, and then starting it again in a different course. The puncture made by the drill usually heals up in a few days, and seldom suppurates.

SUCCESSFUL TREATMENT OF ENLARGED SPLEEN BY HYPODERMIC INJECTIONS OF ERGOT.

BY DR. J. J. JONES, JR.,

Of Little Rock, Arkansas.

William Picket, aged 28, unmarried, native of Illinois, having left that State early in January, 1876, was admitted into the Ladies' Benevolent Hospital of this city, June 29th, 1876, for intermittent fever attended with enlargement of the spleen.

History stated that he began to have "chills and fever" in January last, about the time he left Illinois; first noticed his spleen enlarging early in February following. Since then has continued to grow rapidly. When admitted to the hospital he had considerable ascites and œdema of feet and legs, which yielded promptly to ordinary treatment. The spleen was of such prodigious size as to be a matter of wonder and curiosity to all the medical men who saw it, being the largest that any of them had ever witnessed, and my friend, Dr. Dibrell, Jr., advised me to *detach* the man from the spleen, as the best means of curing it.

The patient was very "bilious," and his condition had evidently been caused by excessive and continued malarial influences. He was put upon the best hygienic measures possible, with active tonic treatment of iron, quinia, etc., alternating with local and specific remedies as suggested by different consulting physicians. Notwithstanding all this, his fever assumed a strong "typhoid tendency;" his bowels and urinary organs became complicated with general derangement, and œdema of feet and legs returning, with rapid emaciation and no appetite; he bid fair to go where he couldn't take

his spleen with him, that is if the pathway is as narrow as divinity teaches us.

In this extremity I submitted a query, through your valuable journal, for a remedy, and was advised to use hypodermic injections of ergot. Acting upon the suggestion, I began on the morning of July 26th, and threw eight drops of Squibb's fluid extract of ergot under the skin, over the left lumbar region, continuing the constitutional treatment of iron, quinia, cod-liver oil and whisky. To my complete surprise, I found the spleen on the next morning to have diminished at least six inches in circumference, and the patient greeted me with the expression, "Doctor, my belly has gone

down so much that it will wrinkle when I sit up." Edema had disappeared from his feet and legs almost entirely, and the other complications began to subside at once.

I used the ergot in the same manner five times, on successive days, with one or two intermissions, and to-day (August 2d) the patient is convalescing, with a respectably proportioned spleen. I consider him about well, and attribute it all to the use of the ergot.

P. S.—Thanks to W. R. Putney, M. D., for advice upon the same subject given in the number of your journal dated July 29th, volume xxxv. Will try it and compare results with the ergot first opportunity.

EDITORIAL DEPARTMENT.

PERISCOPE.

The Origin of Zymotic Diseases.

Dr. Alfred Carpenter, in his address before the British Medical Association, speaking of these maladies, asks:—

Do any of these diseases arise *sud sponte*? The sudden way in which some of them develop sanctions the idea. This is especially the case with enteric fever and scarlatina. Many intelligent and accurate observers have been unable otherwise to account for the appearance of those diseases in given cases. Yet the ordinary laws of natural history would forbid the suggestion. Growths, apparently spontaneous, are common in the vegetable kingdom, but in no case is it supposed that the growth has taken place without the previous presence of appropriate spores or seeds. The sudden and wide-spread appearance of eczema epizootica among cattle, or the destruction of potato blight, seem to be spontaneous, yet those diseases spread by contagium-particles. We may reasonably suppose that the propagation depends upon spores like to *Penicillium glaucum* or *Mucor mucedo*. Those spores are to be always found only waiting for a suitable situation to grow and become fertile in a few hours. They are both aerial and aquatic, and produce different results, according to the dryness or moisture of the position in which they are found, and are modified by the acidity or the alkalinity of the media in which they multiply. Bacteria of different kinds are found in one, vibrios in another; why should not those forms produce a potent matter in their growth, capable in itself of producing disease? We know that certain kinds

of fish may be eaten to-day with impunity, but to-morrow they set up serious disturbances in the animal economy. Vibrios to-day may be harmless, but to-morrow they may produce disease. The secretion from the peritoneum to-day may do no mischief, to-morrow an irritative action may arise, which will set up a most virulent and infectious complaint. In peritonitis a most fatal form of infective disease may be set up, and the infectivity arises *sud sponte* because certain circumstances have been altered, and the biopolism existing normally in the tissues has taken on a new action. The germs were there, but the vital conditions being altered, a comparatively harmless secretion is turned into a virulent poison.

I believe this to be the case with those specific forms of contagion which are multiplied by filth. Scarlatina and typhus, enteric fever and cholera, arise apparently *sud sponte*, because certain germs or foci of potent matter have been altered by the circumstances in which they are placed, and infective power has been added, just as infectivity is produced in the peritoneal secretion by inflaming the membrane which secretes it. The ordinary excreta of carnivorous animals, which contain the *débris* of animal food, may or may not be so placed as to produce the germ upon which filth-disease depends, just as dry rot may or may not arise in a building, according as to whether ventilation has been provided for and new wood kept out of the fabric. But if those germs be introduced in the human economy, the disease arises and spreads in the usual manner. So again with scarlatina, long-continued observation and analogy forbid the idea of an origin except from some bioplasm finding a suitable soil in which it may develop its poisonous character.

Prussic Acid in Cough.

On this point, Mr. W. H. Griffiths says, in the *Medical Press and Circular* :—

Prussic acid has been highly extolled as a remedy in whooping cough, and Dr. E. P. Atlee states that he has effected a cure with it in over two hundred cases, in from four to ten days, or at furthest within a fortnight. According to the experience of Hayward, Richter, and others, it is chiefly useful in the latter stages of this affection. Dr. West finds that it acts most beneficially in cases in which the paroxysmal character is well marked. Unquestionably in some cases it acts with marvellous efficacy, whilst in others it appears to act injuriously. The writer is therefore driven to the conclusion that there is some, as yet, unknown condition which regulates the efficacy of prussic acid in whooping cough. The following is Dr. West's formula :—

R.	Acidi hydrocyanici,	℥iv	
	Sodæ carb.,	gr.x	
	Mist. amygdalæ,	℥j.	M.

A teaspoonful every sixth hour for a child nine months old. We may here mention that the administration of prussic acid to young children calls for the greatest caution.

It is widely admitted that in simple nervous cough, independent of any pulmonary affection, no other medicine is superior to hydrocyanic acid. In chronic lung diseases and in phthisis prussic acid may be useful in allaying cough, but in other respects it must be regarded as by no means possessing the curative powers attributed to it by Brugnatelli, Granville, Magendie, and others. It was at one time regarded as a specific for acute inflammation of the lungs, an opinion held by few therapeutists of the present day. In laryngismus stridulus prussic acid has been employed advantageously by Dr. Reid, and Dr. Thompson regards it as almost a specific in phthisis trachialis. Many writers approve of it as a remedy in spasmodic asthma and also in angina pectoris.

On Posterior Catheterization.

Professor Volkmann, of Halle, in the *Centralblatt*, gives the case of a boy six and three-quarter years old, who had torn his urethra completely across, close to the neck of the bladder, and splintered the right descending ramus of the pubes. The bladder dullness reached up to the umbilicus, and, owing to the irregular and ragged condition of the wound, it was impossible to find the upper end of the urethra. After washing out the wound with a three per cent. solution of carbolic acid, and making about fifty minute punctures in the scrotum, to relieve extravasation, the bladder emptied itself; but as upon the following day it was still impossible to find the upper part of the urethra, Volkmann determined on "posterior catheterization." The high operation was selected, instead of simple puncture, on account of the comparative emptiness of the

bladder. A sharply-curved silver catheter was then introduced into the opening, and at the first attempt passed easily into the urethra, and so into the wound. A string was then attached to the end of the metallic catheter, and by means of this a soft instrument was drawn into the bladder, while the other end was in the same way introduced from behind forward into the anterior part of the urethra by the help of another silver instrument. In spite of considerable fever the patient recovered without much disturbance, the wounds being treated openly. The strings attached to each end of the catheter were of great use in helping to cleanse and change the instrument.

At the end of three weeks the patient was removed, at the request of his parents. All was then quite healed, and he walked without a limp, and passed his water in a full stream. The urethra was, however, so much drawn down by cicatrization toward the fracture in the pubes that it was impossible, or very difficult, to introduce an instrument into the bladder.

The Treatment of Burns.

It is always useful to have at one's fingers ends the best treatment for such common and painful emergencies as burns and scalds, and, indeed, such knowledge cannot be too widely diffused. The summary given by Mr. Holmes, in his recent *Manual of Surgery*, is very concise and complete, and embodies large experience. He says :—

At the time of the accident, the main indications are to exclude the air from the burned surface, to allay pain by opiates, and to give stimulants in such quantities as may be necessary. The applications which are in use for burns are too numerous to mention, and the choice of one or other of them will depend in a great measure on the depth of the burn. A mere superficial scorch is best treated by some warm solution applied on a thick rag and kept constantly moist. Goulard-water with laudanum is perhaps as grateful as anything. Painting the surface with ink soon relieves the pain of a small superficial burn, or covering it with whitewash or some other similar substance, which will crust over it and completely exclude the air from it. Common flour thickly dredged on the part is a very good and handy application. But such crusts should not be applied over burned surfaces of the second degree, since their removal would soon become necessary, and this would drag off the epidermis. The bullæ should be pricked, the epidermis gently smoothed down, and some simple ointment put next the skin, or some oily substance which will not stick when it is necessary to change it. A very favorite application to these burns and to others of greater depth is the Carron oil, made by mixing lime-water and linseed-oil in equal parts, and deriving its name from its having come into extensive use at the great Carron Foundry in the numerous burns occur-

ring there. Oil of turpentine is a very good application to those in which the surface of the skin is quite destroyed. But for the first few days I doubt whether anything is better than simply swathing the part in thick layers of cotton-wool, which is prevented from sticking to the burned surface by some simple ointment (cerat. calaminæ is generally used) spread on thin soft linen or cambric, and covering the whole burned surface. When, after a few days, the discharge becomes foul, this dressing should be changed for some deodorizing or antiseptic oily application, or the latter may be used from the first; but all the antiseptics I have yet seen used have been stimulating, and for the first few days it is desirable, I think, to avoid any local stimulation. The carbolyzed oil answers every indication better than any other substance which I know of, but it should not be used too strong; for it may both prove too stimulating, and thus increase the discharge, and it may be absorbed, producing a black condition of the urine, and other symptoms of incipient poisoning. It is well, then, to begin with a very weak solution (about 1 to 12), and if this does not correct the fetor its strength may be gradually increased, or a stronger solution of carbolic acid may be placed over the dressings. If carbolic acid is not tolerated, some preparation of benzoine, or Condy's solution, or the lot. sodæ chlorinatæ may be applied either directly to the burned surface or over the dressings.

On Iridectomy.

In a lecture on cataract, in the *Medical Times and Gazette*, Mr. Charles Higgins, of Guy's hospital, says:—

The questions we have to consider are—In what cases should iridectomy be performed? In what cases may we extract cataract without it? And, first, with regard to iridectomy, a piece of iris should be removed—1. In cases where iritis has previously occurred, and adhesions of the iris to the lens capsule exist, and in all cases where the pupil does not dilate readily, even though there be no adhesions. 2. In all cases where the tension of the eyeball is above par. 3. In all cases where the lens is only partially opaque.

The iridectomy may be performed at the same time that the cataract is extracted, or some weeks or months previously. In cases where a very considerable part of the lens is still transparent, or the tension of the eyeball above par, I much prefer to do iridectomy as a preliminary, and to allow a considerable time to elapse before performing extraction.

The advantages gained by performing iridectomy are—1. It gives ample room for the escape of the cataract. 2. It prevents prolapse of the iris after the extraction has been completed. 3. It greatly diminishes the risk of closure of the pupil by subsequent iritis, and if performed some time before the extraction, the risk of iritis occurring at all is reduced to a

minimum; it also reduces the tension of the globe, if this be above par.

I consider very few cases suited for extraction without iridectomy, and seldom employ this method. The cases I select are eyes with entirely opaque lenses, active, easily dilatable pupils, and apparently (with the exception of the cataract) healthy in every way, the patients being quiet, imperturbable people, who will bear an operation without flinching, will do exactly what they are told, and never do wrong if they can help it.

The results of extraction without iridectomy are, when entirely successful, all that can be wished: the pupil is circular, active, and central—in fact, the eye looks as if it had never had cataract or been operated on—whilst vision, with suitable glasses, may be raised to the normal standard. Results such as these are only obtained occasionally. In very many cases prolapse of the iris takes place, and an adhesion to the cornea is formed; or iritis sets in, and the pupil becomes entirely closed. All things considered, extraction of cataract without iridectomy is not a good operation, in spite of the brilliant results obtained in some cases.

I think the best operation is not that which gives the most successful results in a few cases, but that which gives uniformly good results in the greatest number; and therefore—though I do not tie myself to any one method of operating—I prefer sections associated with iridectomy. Between the linear and small flap sections, I have no choice, though I have made many more of the former than of the latter.

Causes of Death in Strangulated Hernia.

The following two cases and remarks are given by Mr. R. Parker, F. R. C. S., in the *Lancet*:—

CASE 1.—A man, aged thirty-nine, with left inguinal and scrotal hernia of thirty years' standing, formerly all reducible, latterly not. On Nov. 9th, strangulation, reduction in infirmary by taxis after twelve hours; omentum left in sac; uncertainty whether any bowel yet remained. Symptoms returned. Herniotomy by Mr. Harrison after two days, sac being opened; no gut found; much omentum reduced; some left in sac fixed by fibrous adhesions. Death in thirty-six hours. The post-mortem examination revealed sticky peritonitis; transverse colon dragged tightly down to the level of the umbilicus by omentum; above this point, intestines distended; below, contracted; bit of ileum near lower end, showing where it had been strangulated, dark purple, probably recoverable, lying near internal ring.

CASE 2.—A man, aged sixty-four, with a left inguinal hernia of a few weeks' standing, strangulated a couple of days. Herniotomy, at the infirmary, by Mr. Harrison; sac not opened, and the bowel reduced by simply holding up the sac, the neck of which had been bent on itself. There was no stricture. Symptoms returned in twenty-four hours, and death

took place in four days. The post-mortem examination revealed sticky peritonitis and moderate distention above the piece of ileum which had been implicated, and which was eight inches from lower end; the end of the omentum was lying loosely in the sac, and was easily withdrawn. No narrowness of sac's neck.

Why did these cases die? All direct cause of strangulation had been removed, but what maintained the symptoms? It would seem that the injured bowel, becoming adherent by peritoneal lymph to the adjacent wall or viscus, and its muscular coat having become paralyzed above the strangulated portion, an amount of obstruction was effected which would, under ordinary circumstances, be impracticable. Mr. Bryant refers to a case which, in several points, resembles Case 1, and in which obstruction of the transverse colon and symptoms of strangulation were kept up by adhesion and traction of omentum. I am disposed to regard the very slightest adhesion and folding of a previously strangulated bowel as capable of effecting fatal obstruction when combined with paralysis of the muscular coat above.

The Treatment of Scrofulous Ophthalmia.

Mr. H. C. Lawrence gives, in the *Medical Press and Circular*, his own experience on this debated subject, as follows:—

The marked digestive derangement has benefited from a mercurial purge, followed by a course of non-mercurial aperients until the evacuations become normal. Next a plain, nourishing and unstimulating diet, to which milk contributes largely, is beneficial. Meat should not be given too freely. Most of the patients are ill-nourished when scrofulous ophthalmia manifests itself; partly from poverty, partly from digestive imperfections: to feed these too generously virtually promotes starvation; the fuel becomes excessive for the combustion power of the invalid.

Cod-liver oil requires regulation in use. Instead of regarding it as a specific, my own experience has led me to consider it hurtful in some cases; the cases for its use and non-use may be differentiated thus, as Sir William Lawrence and Niemeyer have noted: First, the "torpid" constitutions, who are clumsy and thick-set in build, and exhibit a tumid upper lip and enlarged nose, and have abundance of adipose tissue; by these cod oil is not required, and it may prove injurious to them; while, secondly, the "erethitic," with slender frame, lack of fat, and accelerated pulse and over-active nervous system, largely benefit from the use of cod-liver oil. These cases have procured for it the name of an anti-scrofulous remedy (Niemeyer).

The photophobia has been relieved at first by the use of bromide of potassium, and the relief maintained by the administration of quinine. Quinine employed after potassium bromide has appeared more efficacious than when

used alone. Relapses of intolerance of light have yielded to similar treatment.

Fresh air, and plenty of it, is imperative. Cold shower-baths in summer, sponging with tepid sea-salt water in winter, have proved valuable auxiliaries.

For local treatment a green shade, made like the peak of a rifle cap, is preferable to one fitting close to the eyes, the latter being injurious. Padding of the eye with cotton wool to prevent friction of the lids appears to me neither necessary nor advantageous, equally good if not better results having followed frequent poppy fomentation instead, allowing free exposure to air, with shade from light.

When the acute-symptoms have subsided the utmost possible benefit has ensued upon the use of poppy fomentation used as a douche to the eye, at first warm, then tepid, ultimately cold. The spasm of the orbicularis oculi seems to be much lessened thereby.

Counter-irritation in the form of linimentum iodi painted behind the ear is preferable to blistering. Scrofulous constitutions resent blisters, secondary cutaneous eruptions and swelling of the neighboring glands being apt to follow. Frequency of counter-irritation, however, short of producing breach of skin and glandular enlargement, seems not only indicated, but is found practically to be very useful.

Nitrate of silver has proved itself injurious when applied to the conjunctiva in scrofulous ophthalmia, and solution of atropine less useful in allaying irritation temporarily than frequent anodyne fomentation. Atropine should be reserved to ensure dilatation of the pupil when necessary.

Iron is preferable to quinine in marked anæmia, but I have not sufficient evidence to prove its greater efficacy over quinine in promoting repair and nutrition in ulceration of the cornea, as some authors assert, while quinine exerts a marked effect in lessening the photophobia scrofulosa.

REVIEWS AND BOOK NOTICES.

BOOK NOTICES.

The Pathology and Treatment of Childbed: A Treatise for Physicians and Students. By Dr. F. Winckel, formerly Professor and Director of the Gynecological Clinic at the University of Rostock. From the second German edition, with many additional notes by the author. Translated by J. R. Chadwick, M. D., Clinical Lecturer on Diseases of Women, Harvard University. Philadelphia, Henry C. Lea, 1876. pp. 484.

The author first gives a summary of the objective appearances in healthy lying-in women,

the normal state of the genitalia, the lochia, the breasts and secretion of milk, etc., thus preparing the student to understand the difference between health and disease.

Next, he treats of the etiology of childbed diseases, causes, frequency, mortality and general treatment.

He then takes up, in order, genital lesions, displacements, hemorrhages, inflammation, thrombosis and metastatic pyæmia, puerperal fever, diseases of the breasts, of the urethra and bladder, pelvic affections, puerperal eclampsia, mental troubles, skin diseases.

True to his school, the German writer carefully and thoroughly examines and records every point of the least importance, regarding nothing too small, and thus gives his reader and the student the very information he is most likely to search for, and fails to find, in many writers among our English brethren. It seems otherwise with the author of this book. Hence, while we find much to commend, we must not fail to point out defects when they exist. The American practitioner will be surprised to find in his chapter on Eclampsia not the slightest allusion to the use of chloral. Nor in his bibliography does he mention the valuable little monograph by Braun, of Vienna. In short, this chapter has proved to us a source of great disappointment, as we had hoped to have found here a resumé, at least, of all the great forward steps in the treatment of this fearful complication of childbed.

The disadvantage of large lying-in establishments is forcibly shown by a comparison of the mortality of hospitals and private practice—in the former, the deaths being 34 to 1000 cases; in the latter, 66 to 1000 cases.

He devotes twenty-four pages to a historical sketch of former theories of the etiology of puerperal fever, and quotes a case, which he says "is, consequently, a proof that, in private practice, and remote from lying-in establishments, without infection, and without miasma, the most severe forms of the septic diseases may occur, sporadically, in childbed."

He believes the communication of the disease by the air of a lying-in establishment to be extremely rare, but inclines to the opinion that the contagion is transferred by the direct action of an atmosphere impregnated with infectious elements, upon some portion of the mucous lining of the genital organs, and that it is not due to an absorption of the virus by the lungs,

and its subsequent deposit in the uterus. Further, he believes "we are justified in assuming, with reference to the point of entrance of the infecting matter within the organism, that its absorption may take place at any part of the genital organs, * * * and this occurs chiefly in case of a ruptured perineum, etc." This explains why primiparæ are more liable, as they are more sure, to have lesions occur during parturition.

He is quite earnest as to the belief in the conveyance of the infection by the hands of the practitioner, and says "For this reason, it is of the greatest importance that accoucheurs of extensive practice, however careful in their ablutions, should never make autopsies, or, at least, should not attend a case of confinement for a number of days subsequent to such an examination, taking care, even then, to avail themselves, scrupulously, of the most effective means of disinfection."

On this point, it would be well for the inquirer to carefully study his discourse read before the Rostock Medical Society, entitled "A Few Words on the Epidemic Propagation of Puerperal Fever in Lying-in Establishments, and its Dissemination from these Centres."

On the subject of mastitis, a few words are of so much value that we quote: "I, therefore, agree with Berluch, Ed. Martin, and others in regarding the attempts to suck or squeeze out the milk from the affected breast as not only superfluous, but as both futile and cruel." Such action in very many instances produces the very inflammation and subsequently the suppuration which it is intended to prevent. Compression he regards as the proper treatment, and regards warm poultices as useless.

He gives but a passing allusion to what he deems the English treatment, with belladonna, which is really of vast importance, and which, when early and properly employed, rarely fails to prevent suppuration.

"Irregularities in the Secretion of the Milk" forms a chapter of value, including agalactia and galactorrhœa.

Under the head of the common name "milk fever" very diverse affections occur. He justly regards the term as unscientific, and one which should be abandoned.

The book is presented in the usual charming style of the important house from which it emanates; good clear type, excellent paper, and an almost entire absence of typographical errors.

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ON PLEASURE AND PAIN. II.

No one knows better than a physiologist how false is the old maxim, "seeing is believing." He knows that sight and all the other senses never show us things as they are. "No kind and no degree of similarity," observes Professor HELMHOLTZ, "exists between the quality of a sensation and the quality of the agent inducing it and portrayed by it." Our sensations tell us nothing of the real nature of the external world. They are mere symbols, every whit as remote as the written word *horse* is from the animal. Their value depends, however, not on the fidelity of their correspondence, for this is null, but on their fidelity at all times to the same impression. The color red is always the color red, the scent of the rose is the scent of the rose, and it is this logical law of identity which gives sensations their value, not the objects which call them forth.

The laws which govern the correspondence of sensations to impressions are those of transmission: in other words, of nutrition. By an

accidental variation of structure at some remote epoch, a cranial nerve became sensitive to light; this aided the animal in its efforts to nourish and preserve itself, and strengthened by descent, gave rise to an eye. All the senses arose and were ripened in a similar manner. The stimulus of all of them is their preservative powers.

Now, it is conceded by students of sensations that all of them partake either of the nature of pleasure or of pain. Every impression is either one agreeable or disagreeable. It is further experimentally demonstrable that an agreeable sensation is one which is produced by a sustained and continuous impression up to the point of fatigue, a musical tone, for example; while intermittent and discontinuous impressions, as tones of different pitches, or a flickering light, produce disagreeable sensations. This is the inductive axiom on which HELMHOLTZ bases his celebrated *Lehre der Tonempfindungen*.

Continuous impressions, short of fatigue, mean, as shown last week, increased nutrition, repair exceeding waste, preservation strengthening itself. Pleasure, therefore, is physiologically the quality given to sensation by nervous action not in excess of nutrition. The utmost pleasure is derived from *maximum action with minimum waste*.

This generalization offers many instructive corollaries. That which we call the Beautiful in art depends upon it. Hogarth drew a "line of beauty" which he found to be that which in its variations most gratifies in outline and form. It is a double curve, and an analysis of it shows it to be that which the muscles of attachment of the eye permit our sight to follow with least labor to themselves. A curve is preferred, in art, to a rectangle, for the same reason. The changes in languages toward greater brevity and sonorousness are dependent upon the rising preference for action with least waste which the use of such idioms implies.

Waste exceeding repair produces a disagree-

able sensation reaching as it increases to actual pain. As such it incites to action, but to deterrent and evasive action. Pain is the sensation attendant on the death of the part or system. As the sensation opposed to self-preservation and continuity, as contrary to the first law of existence or motion, it is avoided by all organisms. "To move *from* pain and *to* pleasure is the fundamental law of organic beings," says Professor BAIN.

The reader may still be dissatisfied with the explanation, and ask, through the operation of what general law are deterrent sensations, that is, painful ones, associated with waste? Is it an *a priori* arrangement in "the fitness of things?" The question is a proper one, and the reply is, not at all; it is a mere accident; not hardly so much as an accident, but a piece of unconscious choosing. There is nothing in waste itself which necessarily ties it to pain. No god fastened their heads together.

Probably many creatures have been born whose nerves felt pleasure in waste of tissue. Their race is not extinct. "There are," says the Baron D'HOLBACH in one of his works, "some men who find no pleasure except in actions which will bring them to the gallows." Fortunately, human law generally brings them there; and natural law with infinitely greater certainty soon or forthwith destroys that organism which finds pleasure in waste, but preserves that one which feels pain from waste and transmits this feeling, strengthened by descent, to its progeny. The vices which conceal waste under pleasure, such as alcohol and opium-taking, are the most dangerous ones.

This physiological discussion shows how erroneous that doctrine is which regards pleasure as the negative of pain (pessimism), or pain the negative of pleasure (optimism). The Scandinavian mythology represented Odin, the god of action and effort, as accompanied by his two brothers Vili and Ve (*Wohl* and *Weh*, pleasure and pain). So in fact every action disturbs the pre-existing relations of nutrition,

and brings out agreeable or disagreeable feelings. But as repair is one definite thing and waste is another definite thing, so are the feelings to which they give rise.

This inquiry does not stop with physiology. All religions are founded on some theory of pain. They all teach, to some extent, "purification by suffering;" they all connect pain with sin, death with evil, pleasure with goodness, life with joy. In much that they teach the confusion of sensation and thought is evident; pain and death, as has been shown, cannot have come into the world by sin, for the latter can exist in the intellect alone, while the former is common to all organic existence. But that in which the better religions are right is that in preservation, in continuous life, in obedience to law, lies man's true happiness; that through the destruction of those who disobey, consciously or unconsciously, the race is purified; and that sin, wrongfulness, conscious evil-doing has a punishment as certain, as eternal, as *irrevocable* as CALVIN ever taught. The easy doctrine that "bad is good in the making," or that "an error is a truth half-seen," finds not a vestige of support before the merciless laws which take no steps backward, hear no prayers, and admit of no moment of truce. The ground-maxim of all morals lies in pleasure and pain, and is embraced in this sentence from SCHOPENHAUER: "No error is harmless; every one will sooner or later do him who harbors it a hurt."

NOTES AND COMMENTS.

Plant Anæsthesia.

The *Scientific American* states, that the curious discovery has recently been made that anæsthesia may take place not only in animals but in plants, and, in brief, in all forms of life. It has been demonstrated that etherization acts finally on all the tissues of animals and on the central nervous system. Hence, if plants have tissues, the anæsthetic should equally act on them. This substantially appears to be the case; and every vital act, whether occurring in

animal or vegetable, may be anæsthetized. In plants, M. Claude Bernard, to whom is due the credit of the discovery, has found that germination ceases under the influence of ether. He introduced water cresses, which germinate from day to day, into two precisely similar tubes. In one tube he placed a little ether. The plant therein on the following day was found not to have germinated, as the other had; but after being removed from the anæsthetic, the first went on and germinated in a natural manner. The plant had literally been put to sleep.

The Treatment of Cancer.

An English journal states that in the University College Hospital, London, in cancer cases, the application of stramonium ointment was found to give great relief to pain. Mr. Henry Morris had good results in a severe case of epithelioma, involving nearly half the scalp, with "Fell's Paste" (chloride of zinc, flour, and liquor opii sedativus, sufficient to form a paste). The first application produced an eschar, which was cut through so that the remedy could be applied deeper, and applications having been made daily, or on alternate days, for about a month, the whole mass came away, leaving the bone exposed; finally, a thin sheet of this exfoliated, the wound healed, and the patient has remained well for several months since.

Functions of the Optic Thalami.

In the last volume of the West Riding Lunatic Asylum Reports, Dr. C. Browne has a paper on the Functions of the Optic Thalami. The latter contains a considerable number of facts in support of the view that the optic thalami are the chief centres for common sensation, and are also important centres for reflex action. The writer has observed that in most cases of lesion of a thalamus, the hemiplegia which results is accompanied by a very remarkable and permanent abolition of reflex action in the paralyzed limbs. This is, at first sight, difficult to reconcile with the increase in spinal reflex activity which follows section of the cord at a higher point. Several theories to account for the discrepancy are proposed and discussed, and the conclusion reached is that every reflex action involves a double current of molecular change, one direct through the cord; the other, through a "loop line" which extends up to the thalamus, is concerned in the liberation of

higher reflex movements, etc., and is essential, also, for the liberation of the motor impulse of the lower spinal reflex action. He believes that the integrity of the path to the thalamus is sufficient to prevent the spinal over-action which occurs when that path is blocked in division of the cord.

Hydrochloric Acid in Syphilis.

In some therapeutical notes in the *Medical Press and Circular*, Mr. Griffiths remarks that Piroleau was the first to call attention to the anti-syphilitic virtues of hydrochloric acid, and among other authorities who have written favorably of it as a remedy in syphilis are Zeller, Rust and Pearson. Rust considers that abstinence is an essential element of success in this treatment; he found that it invariably failed when a full diet was allowed. The formula used in the Vienna hospital was a drachm of the acid to two pints of barley water daily. In gangrenous ulceration of the genitals Van Swieten employed an application of the strong acid diluted with six parts of water with great success.

Statistics of Tobacco-Smoking.

The following table gives for each country named its consumption of tobacco per annum per 100 inhabitants:—Belgium, 250 kilogrammes; Holland, 200; Germany, 250; Austria, 124.5; Norway, 102.5; Denmark, 100; Hungary, 94; Russia, 83.3; France, 81; England, 62; Italy, 57; Spain, 49; Sweden, 34 kilogrammes. From this it seems that France (in a revenue point of view) does not smoke enough. When she attains the position of Belgium in this matter the tobacco impost will return 896,000,000 fr. to the exchequer, instead of its present 3,000,000 fr.

Experiments with Strychnia.

Professor Wanklyn, following up his experiments on the action of silicated carbon on organic matter, reports in the *Chemical News*, of July 21, a very remarkable experiment. He dissolved some strychnine in water in the proportion of 8.841 grains to the gallon. Without the alkaloid the water tested by the ammonia process yielded 0.05 milligrammes of albuminoid ammonia per litre. With the strychnine in solution it yielded 5.20 milligrammes to the litre. Ten litres were passed through a filter

which had previously been used with solutions of quinine and morphia. The first five litres were thrown away. On testing what passed through afterward by the ammonia process the liquid yielded some free ammonia and 0.04 milligramme of albuminoid ammonia, showing that the filtrate was devoid of strychnine. Before filtration the liquid was distinctly bitter; afterward it had no bitter taste. Mr. Wanklyn says he was confident enough of the exactness of his results to risk his life on them, so he drank 300 centigrammes of the liquid, a quantity which before filtration would have contained 40 milligrammes of strychnine, without tasting any bitterness, or experiencing any injurious effects.

Spontaneous Generation.

The *Institute* (August 2d) announces that the Académie des Sciences received at its meeting on July 31st (the French academicians take no holidays) two letters in absolute contradiction of each other, and both written on the same day (July 29th), one dated from London by Professor Bastian, the other from the Valais by Professor Tyndall. The former reiterates the affirmations made in a previous communication, that urine exposed to a temperature of 50° C. (122° Fahr.) undergoes spontaneous fermentation without the intervention of any ferment. In his letter Prof. Tyndall declares that Prof. Bastian's experiments are absolutely incorrect, he having in vain repeated them. He has never obtained any but negative results, and denies that Professor Bastian has any right to draw conclusions from them favorable to spontaneous generation.

Fountains as Ozone Producers.

A cotemporary remarks that the mechanical action of pure air over vegetation is productive of ozone, but still more manifestly is this subtle quality produced by the dashing of waves and spray against the air. These lashings of air and sea mixed are, electrically speaking, in the nature of one substance rubbing on another. They evoke ozone, which, being inhaled in breathing, gives a stimulus to the constitution. Hence the benefit to health from a sea voyage, or a residence at a pleasant seaside resort. Mr. Binney stated, at a recent meeting of the Manchester (England) Literary and Philosophical Society, that the atmosphere of towns may be sensibly ozonized, and of course improved in

quality, by the action of public fountains. He says: "A water fountain may be regarded as a hydro-electric machine, the friction of the water issuing through the jets developing electric action, materially assisted by the conversion of the spray into aqueous vapor. I would suggest that this fact should be prominently brought before municipal bodies, to induce them to erect fountains in all available places in large cities, as sanitary agents. They might prove highly beneficial in crowded localities."

Treatment of Hysterical Paroxysms.

Professor Thierry, of the St. Pierre Hospital, Brussels, arrests hysterical paroxysms by what he calls "torsion of the abdominal walls." He grasps in his hands the entire walls of the abdomen, either in their bare state or covered with the chemise, and imparts to them a certain amount of torsion, which he gradually increases, and which he maintains until the paroxysm has passed away, and the woman is come entirely to herself. This practice promptly succeeds in aggravated as well as in simple cases.

Diagnosis of Abdominal Cancer.

The following ingenious advice was given by Mr. Maunder, of the London Hospital:—

"Always examine for enlarged glands in the *skin of the navel*; it is an early sign. The case spoken of, had a growth near the pylorus. To ascertain its mobility and the outline of the stomach, the patient was desired to drink one or two tumblerfuls of soda-water. The gas, etc., distending the stomach, lowered the tumor by about an inch, and made it more prominent. In another case, sent in as cancer of liver, we proved the non-adhesion of the growth by injecting the colon with soap-suds, and so pressing it forward."

The Microscopy of the Blood.

The dispute about the microscopy of the blood, in the Biological Section of the International Medical Congress, was led by Prof. Christopher Johnson, of Baltimore, and elicited the following condensed statement of the most important point at issue in the controversy.

Dr. Johnson remarked, in the course of the debate, that on trying the experiment he had found it quite impossible to discriminate microscopically between slides of dog, guinea-pig and human blood, submitted to him by his friend, Dr. J. J. Woodward.

Dr. J. G. Richardson observed that he had arrived at and published similar conclusions respecting these animals, but he would like to inquire of Prof. Johnson, whether, if Ananias (instead of Colonel Woodward) handed him a slide of blood, and, hiding the name upon it, told him it was sheep's blood, he could not, should microscopic examination reveal corpuscles $\frac{1}{1000}$ of an inch on the average, say, without hesitation, "Ananias, you lie"?

Malinin in *Virchow's Archiv*, lxx, § 528, recommends the use of a solution of caustic potassa ($\frac{1}{1000}$) when examining for human blood corpuscles in a dried mass. If the diameter of the corpuscles, after the reagent has produced its effect, is less than 0.0060 mm., it may be decided that they are not human; with a diameter of 0.0070 mm., or more, the probability is in favor of human blood corpuscles; with a diameter of 0.0060-0.0070 mm., we can pronounce that it is not the blood of goats, sheep, or oxen, but is possibly dogs', hogs', or human blood.

Sickness at Different Ages.

Dr. Reginald Southey has recently been delivering a course of valuable lectures on "Individual Hygiene" in London, and in one he introduced a table of "Expectation of Sickness," which he had prepared, and which is as follows:—

At 20 years of age, calculate on 4 sick days yearly.

At 20 to 30, 5 or 6 days.

At 45, 7 days.

At 50, 9 or 10 days.

At 55, 12 or 13 days.

At 60, 16 days.

At 65, 31 days.

At 70, 74 days.

Of course this refers to people of average good health, and not to those who may be afflicted with any ineradicable or chronic ailment.

Syphilitic Phthisis.

M. Fournier, in the *Gazette Hebdom.*, concludes, from his experience, that tertiary syphilis can produce in the lungs lesions which, either locally or by reacting on the general health, stimulate pulmonary phthisis, and that these pulmonary lesions are often amenable to specific treatment, and are not beyond the resources of art; therefore, a careful diagnosis should be made in all cases of tuberculosis, and

where the cause is evidently syphilis, specific treatment should be adopted. The syphilitic lesion is unilateral, circumscribed, and without predilection for the pulmonary apices, and generally affects a circumscribed spot.

Poisoning from Canned Beef.

A scientific commission has completed an investigation of the alleged poisoning of a family by canned corned beef, in New York, and it is gratifying to learn that these experts have decided unanimously that the poison was the result of exposure of the meat after it was uncanned, whereby it became putrid or tainted. They declare that there is nothing deleterious about the canning process, as is abundantly proved by the immense consumption of canned fruits and vegetables without notable cases of injury in any part of the country which cannot be accounted for by some imprudent acts of the consumers.

Quinine in Diphtheria.

Dr. John Burke, of New York city, writes us that the use of quinine in pertussis, has been in vogue in that city for some time. His prescription is:—

R. Quiniae sulphatis, grs.ij
Pulv. glycyrrhizae, grs. iv. M.

For a dose. Or it may be given in a little coffee or *per anum*. He adds:—

"It will fail, as other remedies reputed to be specific have failed, and children will die of whooping cough; nevertheless, it is a very useful remedy in some cases."

The Medical Register and Directory of the United States.

We had announced this work for October 1st; but a large amount of material arriving at a date too late to be used if we issued it then, the alternative was left either to postpone its appearance, or to neglect this material. We have chosen the former, believing that subscribers for it would prefer the delay in compensation for the greater accuracy. The book will now certainly appear in December.

Chloral in Ulcers.

The treatment of ulcers by the local application of a solution of hydrate of chloral, as practiced by Mr. Lucas, of Guy's Hospital, is growing in favor, and is highly extolled by other surgeons.

CORRESPONDENCE.

Puerperal Convulsions.

ED. MED. AND SURG. REPORTER:—

In the REPORTER of June 3d there is a paper on this subject by Dr. Wm. T. Chandler, of Kentucky, who speaks with great positiveness in relation to its nature, and some scorn in reference to its treatment. As we write for the benefit of the profession, and not to eulogize each other, I trust he will tolerate mild criticism.

His patient had "alarming cerebral hyperæmia," which means, I suppose, that not alone the large arteries and great sinuses, but also the small vessels and capillaries of the brain, were dangerously distended with blood. To relieve this distention, he says: "I extracted about sixteen ounces of blood, to relieve the alarming cerebral hyperæmia by diminishing the amount of blood, and at the same time lessen the irritating effect of the urea upon the nervous system." One unaccustomed to bleeding, if he draw the blood into a flat-bottom basin, will fancy that there are "about" sixteen ounces when there are not more than six or eight ounces. He began to bleed his patient, under the strong conviction that if he could draw the blood from the brain so as to reduce it to its normal fullness only, the danger from distention would be wholly removed, and the amount of urea so diminished that it would be harmless to the nervous system. A just conclusion, but how timid his actions. He looked into the basin to see when he had drawn sufficient blood, instead of looking at his patient's face, feeling her pulse, and regarding her general condition. What was the result? That the brain was left in the same condition as when he began to bleed. He was disappointed. "The bleeding," he says, "did no good, either as regards the coma, or the severity or the frequency of the convulsions;" *per contra*, "the symptoms of brain pressure seemed rapidly augmenting; stupor became more profound and nervous insensibility more marked." I hope my readers will look closely at what the doctor is doing here, for on this case he bases the positive conclusions with which he closes his paper. He began to bleed to relieve alarming hyperæmia and diminish the amount of poisonous urea, and yet, before he had drawn enough to give the least relief to the oppressed brain, he stopped the flow, although, he says, "the stupor was not relieved, but became more profound and the nervous insensibility more marked." Why did he not continue the flow of blood until the changed pulse, the blanched face, the relieved stertor, the awakened nervous sensibility proclaimed that the alarming hyperæmia was removed? Was that a trial, a test of the value of blood-letting? And yet, after this drawing of a few ounces of blood, this same practitioner, in his conclusions, given on page 444, says: "When the indications are, however, to relieve cerebral hyperæmia, it

(blood-letting) is demanded to prevent a laceration of the cerebral vessels and effusions in the brain tissue;" and then adds: "I am certain that it is an unreliable procedure for controlling puerperal eclampsia, and however well it may appear in theory, in practice it will almost generally prove a failure." How contradictory are those utterances. First, it is "demanded" to prevent laceration and effusion. Second, he is "certain" that it is an unreliable procedure.

I will now refer him and my readers to an excellent practical article in the REPORTER for July 1st, by Dr. Isaac Scott, of Virginia, by which bleeding is shown not to be unreliable. Dr. Scott thinks if Dr. Chandler, instead of taking "about" sixteen ounces, had really "taken forty-eight or sixty-four ounces, he would have seen a very different effect from the bleeding." Dr. Scott gives two very bad cases, in which nearly a gallon of blood was drawn in one case, and sixty-four ounces in the other, and both convalesced rapidly; and he adds:—"I could mention a number of other instances in which free bleeding had fully as happy a result as in the foregoing cases." And further says he never knew one injured by too much bleeding, but has "seen a number of cases do badly that were bled but little or not at all." Dr. Scott talks like one who has seen much practice and different kinds of treatment.

In addition to this testimony of Dr. Scott, that bleeding is not an unreliable remedy, allow me to refer your readers to the article in the REPORTER of August 5th, by Dr. Wm. Faulkner, of Erie, Pa. He refers to Dr. Scott's paper, and says, "I heartily endorse his treatment. My experience teaches me that we have no more valuable agent in the treatment of this formidable complication of the lying-in chamber, and that we have no other remedy, or combination of remedies, with which we can as promptly protect the brain from injury and prepare the case for the best influence of chloroform and a speedy relaxation of the os." And again, he says: "It is not enough that we know what our most efficient remedies are; we must also know how to use them in the very best possible manner." We have much denunciation of blood-letting now-a-days, by men who have never drawn a drop of blood, and others who have made a few timid trials of it, while those who have had much practice in the measure are a unit in testifying to its great value in the treatment of many affections, and especially in the one before us.

Many years ago I published in the State "Transactions" a detailed account of every case of puerperal eclampsia which I had then met with in my own practice. In 2387 consecutive labors, I had only nine cases of puerperal convulsions.

Here allow me to digress a moment to notice another writer on this subject. Dr. R. L. Moore, of Wisconsin, in the REPORTER of August 26th, says: "With all due respect for those gentlemen who have lately written and spoken on the subject, I would honestly ask if

any patient ever recovers who is stricken with what we term puerperal eclampsia? I mean puerperal eclampsia, pure and simple, with no hysteria about it, and like the case reported by Dr. Chandler in your number of June 3d." Dr. Scott's cases well answer those questions, and I am happy to add my own testimony, that every one of my cases got well, and every one of them was bled copiously, some of them enormously.

Dr. Moore is impelled to say: "I boldly aver my skepticism as to those remarkable results attained by 'never-lost-a-case' reporters, and confidently predict that they will lose the very first case of *real* puerperal eclampsia that they may be called upon to treat."

It is now thirteen years since I published my other cases, during which years I have been in active practice; have had cases of my own, "pure and simple, *real* puerperal eclampsia;" have also been with cases with my medical neighbors; have bled them all; have not in any case forcibly dilated the os uteri, yet all recovered. I hope this report, joined to those by Dr. Scott and Dr. Faulkner, will cheer Dr. Moore and his friends, and animate them to the use of such means of cure as are spoken of by those who must decline his invitation to "report their *fatal cases*," inasmuch as they have not yet any to publish.

Here I might stay my pen were it not that there are all over this vast country practitioners who, like Dr. Moore and his friends, have had no success in the treatment of puerperal convulsions; no fixed convictions in relation to the cause of them, and consequently no positive plan of treatment. Too many young mothers are lost by the physician's reliance on some specific. Brom. pot. has been the death of scores of patients by standing in the way, and occupying the time, precious time, which should have been given to other means. Chloral is a better agent, so is chloroform, but they are scarcely safe in those cases like Dr. Chandler's, of "alarming hyperæmia," unless preceded by copious venesection. You never need be afraid in those cases to draw blood freely; don't draw it in a broad-bottom basin, and then when you have drawn six ounces, fancy that there are about sixteen ounces, and then close the crifice, though every symptom that indicates the necessity for further loss of blood is staring you in the face. Like Dr. Scott, I have never seen one suffer from too much bleeding. Bleed freely, and repeat, if necessary; unload the bowels of irritating contents; apply ice to the scalp in a bladder; pound ice, fold it in a towel and lay it under the head as a pillow, then use chloral, or morphine, or chloroform, the first and last in preference in most cases, and leave the labor to itself if the mouth of the uterus be not dilated. If you have saved the brain all will be well. One of the severest cases, most persistent, that I ever had, occurred within five minutes of delivery and continued for thirteen hours. If you have bled the patient so the brain be saved, you can hold in abeyance the uterine irritation,

till natural efforts at delivery are made, or until the parts are prepared for delivery by the forceps.

HIRAM CORSON, M. D.

Conshohocken, Pa.

NEWS AND MISCELLANY.

Promotions in the Medical Corps, U. S. A.

The promotions in the Medical Corps of the army, under the recent law of Congress, have been made to take effect from October 1st, and the staff is now placed upon an equal footing with the other staff corps of the army as regards rank. Congress, at the last session, passed an act that the number of assistant surgeons now allowed by law should be reduced to 125, abolishing the office of medical storekeeper, and that in addition to the grades now allowed by law, there should be four surgeons with the rank, pay and emoluments of colonels; eight surgeons with the rank, pay and emoluments of lieutenant colonels; to be promoted by seniority from the medical officers of the army, and that this act should not be construed to deprive any medical officer or storekeeper now in office of his commission in the United States Army, and in accordance with this law the following promotions were made:—

Lieutenant Colonels Robert Murray and Charles Sutherland to be majors; Joseph J. B. Wright, and John M. Cuyler to be colonels. [The two colonels already on the list under the old law, are Assistant Surgeon General Charles H. Crane, and Chief Medical Purveyor J. H. Baxter.] Majors Charles McCormic, Charles H. Laub, William J. Sloan, William S. King, James Simons, Charles C. Keeney, John F. Head, Lewis A. Edwards, John F. Hammond, and Elisha J. Bailey to be lieutenant colonels, two of the above rank being authorized by the old law, and eight additional ones by the act above quoted. The list of majors is now headed by Major George E. Cooper, and the captains promoted to the grade of major, to fill the vacancies caused by the above promotions, are: Joseph J. Woodward, William H. Forwood, Ely McClellan, Samuel A. Storrow, William D. Wolverton, Albert Hartsuff, Charles R. Greenleaf, B. Knickerbocker, J. V. D. Middleton, John H. Janeway, Henry R. Tilton, and Samuel M. Horton.

No promotions to the rank of captain from the list of first lieutenants will be made at present, as the law requires that they shall serve at least three years before being promoted, and those now holding the rank of first lieutenant were appointed in 1874. Assistant Surgeon John J. Milhan, who held the rank of major, has resigned, to take effect October 1, and upon the acceptance of his resignation Captain J. C. G. Happersett will be promoted to fill the vacancy. The number of assistant surgeons is now 120, leaving five vacancies in the corps. Applicants for these places will

have to pass a competitive examination before the Army Medical Board, in session in New York city.

The Yellow Fever.

The following telegrams mark the progress of the epidemic:—

SAVANNAH, October 1.—The total number of interments to-day was 25, of which 17 were from yellow fever. Eight of the burials were colored persons. The total interments yesterday were 26, of which 17 were from yellow fever. Twelve of the burials were of colored persons.

NEW ORLEANS, October 1.—There is no mail communication with Texas via Morgan City, on account of quarantine. The New Orleans office is to send Texas mails via Memphis and Little Rock. The yellow fever in New Orleans has caused Galveston to establish a quarantine. The fever appears to be spreading over the entire South.

—Charleston acknowledges four sporadic cases of yellow fever traced to persons that had communication with quarantine and refugees from Savannah. Thus far the pestilence shows no signs of spreading in Charleston.

Veterinary Surgery.

In the Agricultural Building, at letter A, No. 24, J. W. Gadsden has an elaborate and highly instructive exhibit of specimens showing the anatomy, age, and disease of the horse, also the medicines and instruments used in the treatment of this most valuable member of the brute creation.

His exhibit consists of *one hundred and sixty* different articles, which naturally divide themselves into three distinct classes, namely, that illustrating the anatomy or structure of the horse, that having reference to the diseases to which the animal is subject, and, finally, their cure and treatment. Each of these subjects is illustrated in a skillful manner, either by cuts, diagrams, plaster casts, skeletons or bones.

The section devoted to equine diseases is very fully treated by cuts, diagrams, and plates, which even the novice in horse surgery will be able to take in at a glance.

Proper Action.

The Oxford Medical Society (Chester county, Pa.), at a recent meeting, passed a resolution that no feelings of professional comity should prevent a physician from testifying against another one who violates the laws of the State and the welfare of society in such matters as producing abortions or endangering life through inexcusable ignorance. Such sentiments are altogether sound.

Personal.

—Dr. Thomas Laycock, physician to Queen Victoria, died in London recently. Dr. Laycock was born in York in 1812, and studied his profession in the most advanced schools of London, Paris and Gottingen, at the latter of which he was graduated as Doctor of Medicine and Surgery. In 1855 he was appointed Professor of Practice of Medicine in the University of Edinburgh; in 1869, Physician to the Queen in Scotland, and at the same time was Lecturer on the Practice of Medicine in the York Medical School. He suggested the commission to report upon the health of towns in England; sketched a plan for state medical operations, and wrote several important papers on medical topics.

—On Saturday, September 23, Dr. Robert C. Sheldermine died at his residence, southwest corner of Tenth and Parrish streets, Philadelphia, having attained the age of seventy-seven. Deceased was born in Baltimore, and in 1819 took his degree from the University of Maryland. He practiced in Baltimore until 1828, and then came to this city, locating at first at Milestown, on the Old York road. His residence for the last twenty-two years had, however, been at Tenth and Parrish streets. He was a leading member of the Twelfth Street M. E. Church, and served for two years as its Recording Steward.

—Dr. Leidersdorff was well paid for his attendance on the ex-Sultan, receiving 50,000 francs for his traveling expenses, 2500 francs a day, and lodging and attendance in one of the royal palaces.

BOSTON, September 26.—Dr. Charles E. Woodbury, a surgeon at the McLean Insane Asylum, while playing croquet with a patient yesterday, was attacked and beaten about the head with a croquet mallet in the hands of another patient. His injuries are probably fatal.

Items.

—The second annual meeting of the Indiana, Illinois and Kentucky Tri-State Medical Society will be held in the city of Vincennes, Indiana, November 21st, 1876. Prof. Byford, of Chicago, will deliver the opening address.

G. W. BURTON, *Recording Secretary.*

Mitchell, Ind.

—Diphtheria is raging to an alarming extent in Sullivan county, New York. In the towns of Bethel and Cocheton a large number of deaths have occurred, principally among children.

QUERIES AND REPLIES.

Tyro.—No graduate of the so-called "Eclectic" College of this city merits recognition as a physician. Dr. Buchanan, late Dean of that institution, is now under arrest for trading in fraudulent diplomas.